REMARKS

Claims 1-6, all the claims pending in the application, stand rejected. Claims 1, 5 and 6 are amended to emphasize that the displayed image is "exaggerated." While Applicants do not believe that such amendment is necessary in order to distinguish over the prior art, Applicants submit that this added limitation clearly presents a basis for allowance. .

Information Disclosure Statement

The Examiner finds that the Information Disclosure Statement filed March 3, 2008 fails to comply with 37 CFR § 1.98(a)(1). Applicants respectfully request reconsideration and withdrawal of the objection.

First, the Examiner's statement ignores the purpose of the submission, which was to provide an English translation of the International Preliminary Report on Patentability, which cited references JP 2000-176158 and JP 2002-163684. The purpose was not to have the IPRP considered as prior art.

Second, the Examiner's conclusion that the IDS fails to comply with Rule 98(a)(1) is of no consequence since the two Japanese references cited in the IPRP have been considered by the Examiner, as indicated by his initials in the accompanying Form USPTO 1449. Applicants submit that no further action needs to be taken.

Claim Rejections - 35 U.S.C. § 103

Claims 1-3, 5 and 6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ellson et al (5,455,902) in further view of Hubrecht et al (2003/0117402). This rejection is traversed for at least the following reasons.

Claim 1

As a preliminary matter, Applicants respectfully note that the invention is intended to address a problem in a virtual three-dimensional space containing movable objects that are displayed and observed from a particular viewpoint. Specifically, as stated at page 1 of the original specification, as the viewpoint moves further from the object and the part of the object

which is displayed on the screen becomes smaller, the object becomes unclear and impossible to identify.

In order to solve this problem, a display process as illustrated in Fig. 11, including an object exaggeration processing (S102) is conducted. As explained in the original specification beginning at page 10, an object (such as a water droplet) is exaggerated in size (dimension) when displayed. Specifically, the size is made larger as the viewpoint used in creation of the game screen becomes farther from the object (page 11, lines 6-16). In addition, the distance of movement and speed can be exaggerated as well.

As explained at page 13, a magnification rate α determined according to a distance L between a viewpoint 54 and a representative point 56 defined on a game character object 40, as illustrated in Fig. 5. The multiplication factor causes the size of the water droplet object 42 to be changed. The thresholds for instituting such change involve distances L between a viewpoint 54 and a representative point 56 on the game character object 40, as shown in Fig. 7. When the distance L is between a predetermined distance L1 and a predetermined distance L2, the magnification rate α gradually increases beginning with 1 as the distance L increases until the magnification rate α becomes 2, when the distance L becomes equal to the predetermined distance L2. Thus, as summarized at page 14, lines 13-21, a size will remain the same until a distance L1 is reached and, thereafter, the size becomes larger until the distance L reaches a predetermined distance L2. In such case, a water droplet can reach four times the normal size. As further described, not only the size, but moving distances and trajectories may be exaggerated.

Claim 1 captures this unique concept, which specifically ties (1) the distance between an object and a viewpoint to at least one of (2) a moving distance and a moving speed of an object in virtual three-dimensional space. The movement of the object is then based on at least one of the moving distance and the moving speed of the object. The image displayed may be an exaggerated image representative of a picture of the object moving in the virtual three-dimensional space.

As subsequently demonstrated, the prior art does not consider this relationship between (1) a distance L between a viewpoint and an object and (2) a moving distance and a moving speed of an object in virtual three-dimensional space such that (3) a display of an image representative of the object moving in virtual three-dimensional space can be provided.

Ellson et al

The patent to Ellson et al concerns a real-time computer animation system that simulates data generated by CAD systems in order to model the flow of plastic through a mold, including variations in location and color.

The underlying technique in Ellson et al is to define a complex geometrical shape as a plurality of geometrical elements represented by floating point data, defining variations in physical phenomena as it relates to the geometrical elements as a byte width variable data, generating transformation matrices, and applying the transformation matrices to a standard geometrical display element to generate a plurality of glyphs.

Specifically, a mold cavity is divided into a plurality of geometric elements and simulation data is generated and stored as floating point data for each geometric element along with a time step file that includes variable data associated with changes in the physical properties of the plastic as it flows through the geometric elements. Ellson et al mentions in the Summary of the Invention and in the specification with regard to Fig. 9, that a user may alter the viewpoint or perspective from which an observer views the animation display, by rotating and translating the glyph representation presented on the graphics display unit. However, there is no teaching or suggestion of an exaggerated image based on a distance between a viewpoint and an object, or in fact, any modification of an image based upon distances between a viewpoint and an object.

Indeed, the Examiner admits at page 3 of the Office Action that Ellson et al does not explicitly disclose the claimed features of (1) a moving state determination means for determining at least one of a moving distance and a moving speed of the object in the virtual three-dimensional space, based on the distance data, (2) object moving means for moving the object in the virtual three-dimensional space based on at least one of the moving distance and the

moving speed of the object, which is determined by the moving state determination means, and (3) image displaying means for displaying an image representative of a picture of the object moving in the virtual three-dimensional space viewed from the viewpoint.

Indeed, contrary to the Examiner's opinion, Applicants respectfully submit that Ellson et al does not teach or suggest a "distance data calculation means for calculating distance data concerning the object and the viewpoint." The description of a modified viewpoint with regard to Fig. 9 simply notes that a user can enter data, based upon a series of sliders, to define the coordinates of a viewpoint, the distance of the viewer's eye from the viewpoint, and tilt, pan and twist angles. In other words, the user adjusts variables, but there is no calculation of distance data. Furthermore, even if user entered distance data were somehow asserted to be "calculated," there is no use of the distance data in any modification of the object image that is displayed.

Hubrecht et al

The Examiner looks to Hubrecht et al for the elements that the Examiner admits are missing from Ellson et al, and asserts it would have been obvious to combine the viewpoint changing of Ellson et al with the object movement of Hubrecht et al with the motivation of getting a better angle or view of the object. The Examiner points to the teachings in paragraph [0171] and the illustration in Figs. 1 and 12 of Hubrecht et al for support.

While Hubrecht et al is concerned with the determination of a current position and a desired position of an object in a next frame, such determination is not made as a function of viewpoint or calculated distance data. The description at paragraph [0171] is of the flow in Fig. 16A where the desired position of an object, based on the position, direction and velocity that is input by a user can be calculated for a moving object.

The text in subsequent paragraphs [0172]-[0178] are focused on determining whether a collision has been detected between an avatar and grid cells or bounding boxes, as the avatar is moved. Nothing in Hubrecht et al concerns an exaggerated image and, in particular, an image that changes size, velocity, or trajectory on the basis of a distance between a viewpoint and the object.

This concept clearly is unique to the applicants of the present application and was nowhere considered by the prior art.

In order to highlight this uniqueness, Applicants have added the word "exaggerated" to an appropriate location in the claim so that this feature may be emphasized.

Claim 2

With regard to claim 2, the Examiner notes that the glyph can be increased in size or decreased in size, as illustrated in Fig. 11. However, this has no relationship to distances between a viewpoint and an object.

Claim 3

This claim would be patentable for reasons given for its parent claim.

Claims 5 and 6

These independent claims contain limitations similar to those in claim 1 and would be patentable for the reasons given. A similar amendment has been made to these claims.

Claim 4 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Ellson et al. (5,455,902) in view of Hubrecht et al (2003/0117402) and Moran et al (5,880,743). This rejection is traversed for at least the following reasons.

Moran et al

The patent to Moran et al is cited for a teaching of the claimed "size information determination means" that determines a rate by which the object is enlarged or reduced as the size information of the object based on the distance data, and the object enlargement and reduction means enlarges or reduces the object having a predetermined size by the rate, with reference to the disclosure at col. 20, lines 33-41.

The cited disclosure concerns animation of changes to data in a display-oriented graphical editing system where an object or group of objects is displayed. Moran merely teaches a user control, based on freeform and/or a structured operation, of changes to a

selected object such as movement to a new location or expansion/shrinking. The changes occur gradually at a visually apparent rate, rather than instantaneously. However, there is no teaching or suggestion that any such change may be based upon a distance between a viewpoint and an object. These are all user selected and controlled modifications of object size. Thus, Moran fails to remedy the deficiencies in Ellson et al and Hubrecht et al.

In short, the basic invention is clearly patentable over the cited art since the fundamental concept of the invention is neither taught or suggested.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

/Alan J. Kasper/

Alan J. Kasper
Registration No. 25,426

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Date: September 22, 2008